

A MOTOR OF ROTOR WITH BUILT-IN PERMANENT MAGNET

ABSTRACT

The present invention is a motor of rotor with built-in permanent magnet, which comprises an annular stator and a rotor. The annular stator is set a cylindrical capacity with suitable diameter; the rotor is set in the cylindrical capacity, and an air gap is between a circumference surface of cylindrical capacity and rotor. Rotor further includes a rotor core, and a plurality of openings are formed surrounding the rotor core. Each opening is with two parallel surfaces, a top surface and a bottom surface, and each of them is a flat plate figure. The top surface is adjacent to a contour of rotor core, and extends along the circumference contour forming a side surface which substantially parallel to the contour. A suitable distance is between the side surface and circumference contour, and any two adjacent surfaces are with a channel of suitable width. A plurality of permanent magnets are arranged in openings by way of interlaced magnetic poles, and the shape of permanent magnet is matched with the shape of the opening.